

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application. Please amend the claims, as follows.

1-5. (Canceled)

6. (Currently Amended) ~~The method of claim 1,~~ A method for replicating one or more data objects from a source system to a target system, the method comprising:

providing an electronic data element comprising first, second, and third data fields, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;
and wherein the electronic data element further comprises a third data field is configured to store data representing whether the identifier stored in the first data field is a default identifier;
assigning the identifier to the one or more data objects;
processing the one or more data objects in accordance with a software application;
storing the one or more processed data objects on the source system;
changing the state of the identifier in the electronic data element to indicate that the one or more processed data objects are ready to be replicated from the source system to the target system; and
replicating, in response to changing the state of the identifier, the one or more processed data objects from the source system to the target system.

7. (Currently Amended) The method of claim 1, further comprising A method for replicating one or more data objects from a source system to a target system, the method comprising:

providing an electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;

assigning the identifier to the one or more data objects;
processing the one or more data objects in accordance with a software application;

storing the one or more processed data objects on the source system;
changing the state of the identifier in the electronic data element to indicate that the one or more processed data objects are ready to be replicated from the source system to the target system;

replicating, in response to changing the state of the identifier, the one or more processed data objects from the source system to the target system; and

changing the first second data field from the first state to the second state.

8. (Canceled)

9. (Previously Presented) The method of claim 7, further comprising changing the second data field to the third state after the one or more processed data objects have been stored on the source system.

10. (Previously Presented) The method of claim 9, further comprising:

creating a new electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to one or more data objects and the second data field contains data representing a state of the identifier; and

setting the second field of the new electronic data element to the first state.

11. (Previously Presented) The method of claim 10, wherein the new electronic data element further comprises a third data field configured to store data representing whether the identifier stored in the first data field of the new electronic data element is a default identifier, and the method further comprising storing data in the third data field of the new electronic data element to indicate that the first data field of the new electronic data element contains the default identifier.

12. (Currently Amended) The method of claim 10, further comprising setting the second field of the new electronic data element to the second state.

13. (Previously Presented) The method of claim 6, further comprising changing the third data field of the electronic data element from a value corresponding to the default identifier to a value corresponding to an identifier other than the default identifier.

14. (Currently Amended) ~~The method of claim 1, further comprising:~~ A method for replicating one or more data objects from a source system to a target system, the method comprising:

_____ providing an electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

_____ a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

_____ b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

_____ c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;

assigning the identifier to the one or more data objects;

processing the one or more data objects in accordance with a software

application;

storing the one or more processed data objects on the source system;

changing the state of the identifier in the electronic data element to indicate that
the one or more processed data objects are ready to be replicated from the source
system to the target system;

replicating, in response to changing the state of the identifier, the one or more
processed data objects from the source system to the target system;

setting a block on the electronic data element;

● examining the second field of the electronic data element; and

if the state of the second field of the electronic data element is the first state or
the second state, preventing a change in the state of the second field to the third state.

15. (Previously Presented) The method of claim 14, removing the block if storing of
the one or more data objects is committed.

16. (Original) The method of claim 14, further comprising irreversibly setting the block
if the electronic data element is in the third state.

17. (Currently Amended) ~~The method of claim 1, further comprising~~ A method for
replicating one or more data objects from a source system to a target system, the
method comprising:

providing an electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;

assigning the identifier to the one or more data objects;
processing the one or more data objects in accordance with a software application;

storing the one or more processed data objects on the source system;
changing the state of the identifier in the electronic data element to indicate that the one or more processed data objects are ready to be replicated from the source system to the target system;

replicating, in response to changing the state of the identifier, the one or more
processed data objects from the source system to the target system; and
share locking the electronic data element.

18. (Previously Presented) The method of claim 17, further comprising share locking the electronic data element prior to assigning the identifier of the electronic data element to the one or more data objects.

19. (Previously Presented) The method of claim 17, further comprising unlocking the share locking of the electronic data element after storing of the one or more data objects is committed.

20. (Previously Presented) The method of claim 17, further comprising examining the state of the share lock of the data element prior to assigning the identifier of the electronic data element to the one or more data objects.

21-28. (Canceled)

29. (Currently Amended) ~~The system of claim 24,~~ A system for replicating one or more
data objects from a source system to a target system, the system comprising:
a memory; and
a microprocessor coupled to the memory and programmed to:

provide an electronic data element comprising first, second, and third data fields, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;

wherein the electronic data element further comprises a third data field is configured to store data representing whether the identifier stored in the first data field is a default identifier;

assign the identifier to the one or more data objects;
process the one or more data objects in accordance with a software
application;
store the one or more processed data objects on the source system;
change the state of the identifier in the electronic data element to indicate
that the one or more processed data objects are ready to be
replicated from the source system to the target system; and
replicate, in response to changing the state of the identifier, the one or
more processed data objects from the source system to the target
system.

30. (Currently Amended) ~~The system of claims 25,~~ A system for replicating one or
more data objects from a source system to a target system, the system comprising:
a memory; and
a microprocessor coupled to the memory and programmed to:
provide an electronic data element comprising a first data field and a
second data field, wherein the first data field contains data
representing an identifier assignable to the one or more data
objects and the second data field contains data representing a state
of the identifier, the second data field configured to store one of:
a) a first state, in which said electronic data element may be
accessed by one or more data object processing

operations and whereby said identifier is assignable
to one or more data objects.

b) a second state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
assignable to one or more data objects by one or
more data object processing operations having
already accessed said identifier at a time when said
identifier was in the first state, or

c) a third state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
not assignable to one or more data objects;

assign the identifier to the one or more data objects;

process the one or more data objects in accordance with a software
application;

store the one or more processed data objects on the source system;

change the state of the identifier in the electronic data element to indicate

that the one or more processed data objects are ready to be

replicated from the source system to the target system; and

replicate, in response to changing the state of the identifier, the one or
more processed data objects from the source system to the target
system.

wherein the microprocessor is further programmed to change the first second data field from the first state to the second state.

31. (Canceled)

32. (Previously Presented) The system of claim 30, wherein the microprocessor is further programmed to change the second data field to the third state after the one or more processed data objects have been stored on the source system.

33. (Previously Presented) The system of claim 32, wherein the microprocessor is further programmed to:

create a new electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to one or more data objects and the second data field contains data representing a state of the identifier; and

set the second field of the new electronic data element to the first state.

34. (Previously Presented) The system of claim 33, wherein the new electronic data element further comprises a third data field configured to store data representing whether the identifier stored in the first data field of the new electronic data element is a default identifier, and wherein the microprocessor is further programmed to store data in the third data field of the new electronic data element to indicate that the first data field of the new electronic data element contains the default identifier.

35. (Currently Amended) The system of claim 33, wherein the microprocessor is further programmed to set the second field of the new electronic data element to the second state.

36. (Previously Presented) The system of claim 29, wherein the microprocessor is further programmed to change the third data field of the electronic data element from a value corresponding to the default identifier to a value corresponding to an identifier other than the default identifier.

37. (Currently Amended) ~~The system of claim 24, wherein the microprocessor is further programmed to:~~ A system for replicating one or more data objects from a source system to a target system, the system comprising:

a memory; and

a microprocessor coupled to the memory and programmed to:

provide an electronic data element comprising a first data field and a

second data field, wherein the first data field contains data

representing an identifier assignable to the one or more data

objects and the second data field contains data representing a state

of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be

accessed by one or more data object processing

operations and whereby said identifier is assignable
to one or more data objects.

b) a second state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
assignable to one or more data objects by one or
more data object processing operations having
already accessed said identifier at a time when said
identifier was in the first state, or

c) a third state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
not assignable to one or more data objects;

assign the identifier to the one or more data objects;

process the one or more data objects in accordance with a software
application;

store the one or more processed data objects on the source system;

change the state of the identifier in the electronic data element to indicate

that the one or more processed data objects are ready to be

replicated from the source system to the target system;

replicate, in response to changing the state of the identifier, the one or

more processed data objects from the source system to the target

system;

set a block on the electronic data element;
examine the second field of the electronic data element; and
if the state of the second field of the electronic data element is the first
state or the second state, prevent a change in the state of the
second field to the third state.

38. (Previously Presented) The system of claim 37, wherein the microprocessor is further programmed to remove the block if storing of the one or more data objects is committed.

39. (Original) The system of claim 37, wherein the microprocessor is further programmed to irreversibly set the block if the electronic data element is in the third state.

40. (Currently Amended) ~~The system claim 24, wherein the microprocessor is further~~
programmed to—A system for replicating one or more data objects from a source system
to a target system, the system comprising:

a memory; and

a microprocessor coupled to the memory and programmed to:

provide an electronic data element comprising a first data field and a
second data field, wherein the first data field contains data
representing an identifier assignable to the one or more data

objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;

assign the identifier to the one or more data objects;

process the one or more data objects in accordance with a software application;

store the one or more processed data objects on the source system;

change the state of the identifier in the electronic data element to indicate
that the one or more processed data objects are ready to be
replicated from the source system to the target system;
replicate, in response to changing the state of the identifier, the one or
more processed data objects from the source system to the target
system, and

share lock the electronic data element.

41. (Previously Presented) The system of claim 40, wherein the microprocessor is further programmed to share lock the electronic data element prior to assigning the identifier of the electronic data element to the one or more data objects.

42. (Previously Presented) The system of claim 40, wherein the microprocessor is further programmed to unlock the share locking of the electronic data element after storing of the one or more data objects is committed.

43. (Previously Presented) The system of claim 40, wherein the microprocessor is further programmed to examine the state of the share lock of the data element prior to assigning the identifier of the electronic data element to the one or more data objects.

44-46. (Canceled)

47. (Currently Amended) ~~The method of claim 1.~~ A method for replicating one or more data objects from a source system to a target system, the method comprising:
_____ providing an electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:
_____ a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects.
_____ b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or
_____ c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;
_____ assigning the identifier to the one or more data objects;
_____ processing the one or more data objects in accordance with a software application, wherein the software application is a business application;
_____ storing the one or more processed data objects on the source system;

changing the state of the identifier in the electronic data element to indicate that the one or more processed data objects are ready to be replicated from the source system to the target system; and
replicating, in response to changing the state of the identifier, the one or more processed data objects from the source system to the target system.

48. (Previously Presented) The method of claim 47, wherein the business application is an enterprise resource planning software application.

49. (Previously Presented) The method of claim 47, wherein the step of replicating the one or more data objects from the source system to the target system is performed by a software application other than the business application.

50. (Currently Amended) ~~The method of claim 1,~~ A method for replicating one or more data objects from a source system to a target system, the method comprising:
providing an electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;

assigning the identifier to the one or more data objects;
processing the one or more data objects in accordance with a software application;
storing the one or more processed data objects on the source system;
changing the state of the identifier in the electronic data element to indicate that the one or more processed data objects are ready to be replicated from the source system to the target system; and
replicating, in response to changing the state of the identifier, the one or more processed data objects from the source system to the target system.

wherein the one or more data objects includes at least one booking, accounting, invoicing, receipt, or voucher data object.

51. (Currently Amended) ~~The system of claim 24,~~ A system for replicating one or more data objects from a source system to a target system , the system comprising:
a memory; and

a microprocessor coupled to the memory and programmed to:

provide an electronic data element comprising a first data field and a
second data field, wherein the first data field contains data
representing an identifier assignable to the one or more data
objects and the second data field contains data representing a state
of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be
accessed by one or more data object processing
operations and whereby said identifier is assignable
to one or more data objects,

b) a second state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
assignable to one or more data objects by one or
more data object processing operations having
already accessed said identifier at a time when said
identifier was in the first state, or

c) a third state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
not assignable to one or more data objects;

assign the identifier to the one or more data objects;

process the one or more data objects in accordance with a software
application, wherein the software application is a business
application;
store the one or more processed data objects on the source system;
change the state of the identifier in the electronic data element to indicate
that the one or more processed data objects are ready to be
replicated from the source system to the target system; and
replicate, in response to changing the state of the identifier, the one or
more processed data objects from the source system to the target
system.

52. (Previously Presented) The system of claim 51, wherein the business application is an enterprise resource planning software application.

53. (Previously Presented) The system of claim 51, wherein the microprocessor executes a software process other than the business application to replicate the one or more data objects from the source system to the target system.

54. (Currently Amended) ~~The system of claim 24~~ A system for replicating one or more data objects from a source system to a target system , the system comprising:
a memory; and
a microprocessor coupled to the memory and programmed to:

provide an electronic data element comprising a first data field and a second data field, wherein the first data field contains data representing an identifier assignable to the one or more data objects and the second data field contains data representing a state of the identifier, the second data field configured to store one of:

a) a first state, in which said electronic data element may be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects,

b) a second state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is assignable to one or more data objects by one or more data object processing operations having already accessed said identifier at a time when said identifier was in the first state, or

c) a third state, in which said electronic data element may not be accessed by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects;

assign the identifier to the one or more data objects;

process the one or more data objects in accordance with a software application;

store the one or more processed data objects on the source system;
change the state of the identifier in the electronic data element to indicate
that the one or more processed data objects are ready to be
replicated from the source system to the target system; and
replicate, in response to changing the state of the identifier, the one or
more processed data objects from the source system to the target
system,

wherein the one or more data objects includes at least one booking, accounting, invoicing, receipt, or voucher data object.

55. (Currently Amended) ~~The system of claim 24;~~ A system for replicating one or more data objects from a source system to a target system , the system comprising:

a memory; and
a microprocessor comprising wherein the microprocessor comprises one or more processors coupled to the memory and programmed to:

provide an electronic data element comprising a first data field and a
second data field, wherein the first data field contains data
representing an identifier assignable to the one or more data
objects and the second data field contains data representing a state
of the identifier, the second data field configured to store one of:
a) a first state, in which said electronic data element may be
accessed by one or more data object processing

operations and whereby said identifier is assignable
to one or more data objects.

b) a second state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
assignable to one or more data objects by one or
more data object processing operations having
already accessed said identifier at a time when said
identifier was in the first state, or

c) a third state, in which said electronic data element may
not be accessed by one or more data object
processing operations and whereby said identifier is
not assignable to one or more data objects;

assign the identifier to the one or more data objects;

process the one or more data objects in accordance with a software
application;

store the one or more processed data objects on the source system;

change the state of the identifier in the electronic data element to indicate

that the one or more processed data objects are ready to be

replicated from the source system to the target system; and

replicate, in response to changing the state of the identifier, the one or
more processed data objects from the source system to the target
system.

56-58. (Canceled)